REMARKS/ARGUMENTS

Claims 9-16 are pending.

Claims 9-15 have been amended.

Claim 16 have been added.

Claims 1-8 have been cancelled.

Support for the amendments is found in the claims and specification (e.g., page 10, lines 1-15; page 7, lines 24-32) as originally filed.

No new matter is believed to have been added.

The rejection of claim 1-15 under 35 U.S.C. 112, second paragraph, is not applicable to the claimed presented herein because claim 1 has been cancelled. Applicants request that the rejection be withdrawn.

Claims 1-3, 7, 9-10, and 14-15 are rejected under 35 U.S.C. 102(b) over Nishiwaki et al. (the Examiner cited the name of a third inventor Ito in the Official Action) GB 2063695.

Claims 9-10 and 14-15 are rejected under 35 U.S.C. 102(b) over Serafin, US 5,927,852.

The rejections are traversed because the cited art does not describe or suggest a device for producing a finely divided dispersion (a) wherein the collision point in the device is surrounded by balls and (b) the balls arranged in a form of a tetrahedron around the collision point.

The claimed device for producing a finely divided dispersion comprises: at least two nozzles for spraying a predisposing, at least two pumps, wherein each of said nozzles have an associated pump, and a grinding chamber surrounded by a reactor housing, wherein the predispersion can be fed onto a common collision point and the dispersion can leave the

grinding chamber through an opening in the reactor housing, wherein the collision point in the device is surrounded by balls.

Nishiwaki et al. describe spraying flows of a predispersed material into a chamber through at least one nozzle, wherein two jets of the predispersion collide and a fine dispersion is removed from the chamber. In the device of Nishiwaki et al., a flow is split in at least two flows which then collide and recombine into one flow (see figs. 1-2, 5).

Serafin describes a process and an apparatus for production of a heat sensitive dispersion with flows "impinging" onto each other (col. 2, lines 25-64; fig. 1-2). In the Serafin device, a flow is also split in two before colliding in a chamber.

Nishiwaki et al. and Serafin do not describe a device for producing a finely divided dispersion (a) wherein the collision point in the device is surrounded by balls (see claim 9) and (b) the balls arranged in a form of a tetrahedron around the collision point (see claim 16).

In the claimed device, a jet flow from a nozzle is not split in two, but two flows or more from two pumps or more enter the chamber and collide without first splitting.

Thus, Nishiwaki et al. and Serafin do not anticipate the claimed dispersion device. Applicants request that the rejection be withdrawn.

Claims 4-6, 8, and 11-13 are rejected under 35 U.S.C. 103(a) over Nishiwaki et al. and Serafin. The rejection is traversed because the combination of the references does not describe or suggest a device for producing a finely divided dispersion (a) wherein the collision point in the device is surrounded by balls (see claim 9) and (b) the balls arranged in a form of a tetrahedron around the collision point (see claim 16).

The device's configuration minimizes the wear of the dispersing device, minimize the introduction of contaminants as a result of abrasion and permits a simple and economical isolation of the dispersion after it has been dispersed (pages 1-3 of the present specification).

The collision point may be surrounded by a material that is disposed in such a way that, in the event of misalignment of the nozzles, the jet of the predispersion collides with said material. This measure is capable of minimizing wear of the reactor housing as a result of misaligned dispersion jets. The material (i.e., balls, see claim 9) is arranged in the form of a tetrahedron (see claim 16). In the event of a misalignment, the dispersion jet collides with the balls and not with the respective walls, situated opposite, of the reactor housing (pages 7-8).

Nishiwaki et al. describe spraying flows of a predispersed material into a chamber through at least one nozzle, wherein two jets of the predispersion collide and a fine dispersion is removed from the chamber. In the device of Nishiwaki et al., a flow is split in at least two flows which then collide and recombine in one flow (see figs. 1-2, 5).

Serafin describes a process and an apparatus for production of a heat sensitive dispersion with flows "impinging" onto each other (col. 2, lines 25-64; fig. 1-2). In the Serafin device, a flow is also split in two before colliding in a chamber.

Substituting the device of Nishiwaki et al. with features of the Serafin device still does not produce the claimed dispersion apparatus because the combination of the references does not describe or suggest a device for producing a finely divided dispersion (a) wherein the collision point in the device is surrounded by balls (claim 9) and (b) the balls arranged in a form of a tetrahedron around the collision point (claim 16).

The Examples in the present specification show that using balls around the collision point in a chamber greatly increase the service time (see Table on page 13 and pages 8-12 with the Examples).

Thus, Nishiwaki et al. and Serafin do not make the claimed dispersion device obvious.

Applicants request that the rejection be withdrawn.

Claims 1, 6, 8-9, and 12 are rejected the ground of nonstatutory obviousness-type double patenting over claims 1-4, 9, 11, 14, and 18 of Lortz et al., US 6,991,190.

The rejection is traversed because claims 1-4, 9, 11, 14, and 18 of Lortz et al. do not claim a device for producing a finely divided dispersion (a) wherein the collision point in the device is surrounded by balls (present claim 9) and (b) the balls arranged in a form of a tetrahedron around the collision point (present claim 16). In addition, the specification of Lortz et al. does not describe or suggest using ball situated around the collision point.

The device's configuration minimizes the wear of the dispersing device, minimize the introduction of contaminants as a result of abrasion and permits a simple and economical isolation of the dispersion after it has been dispersed (pages 1-3 of the present specification).

The Examples in the present specification show that using balls around the collision point in a chamber greatly increase a service time (see Table on page 13 and pages 8-12 with the Examples).

Thus, Lortz et al. do not make the claimed dispersion device obvious.

Applicants request that the rejection be withdrawn.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Marina I. Miller, Ph.D.
Attorney of Record
Registration No. 59,091

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)